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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,013	09/27/2001	Patrick Joseph Bohrer	AUS920010312US1	2760

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EXAMINER	
AILES, BENJAMIN A	

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/965,013	BOHRER ET AL.	
	Examiner	Art Unit	
	Benjamin A. Ailes	2142	

-- The MAILING DATE of this communication appears on the cover sh t with the correspondence addr ss --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-7,10-15 and 18-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 4-7, 10-15, 18-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to correspondence received 28 February 2006 and Remarks filed 05 December 2005.

Claim Objections

2. Amendment to claim 23 has been acknowledged and the previous objection has been withdrawn.

Response to Arguments

3. Applicant's arguments filed 05 December 2005 with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4. Cancellation of claim 3 has been acknowledged and the previous 112 rejection of claim 3 has been withdrawn.

Response to Arguments

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 4-7, 10-15, 18, 19 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chawla et al. (U.S. 6,876,668), hereinafter referred to as Chawla in view of Ravi et al. (US 6,292,834 B1), hereinafter referred to as Ravi.

9. Regarding claim 1, Chawla discloses a method of operating a data processing network, comprising:

performing an initial negotiation between a server of the network and a switch to which the server is connected, wherein the initial negotiation establishes an initial operating frequency of a link between the server and the switch (col. 5, lines 20-25 and col. 12, line 61 – col. 13, line 4);

determining an effective data rate of the server based on network traffic communicated over the link (col. 12, line 61 – col. 13, line 4); and

Chawla teaches the determination of an effective data rate of a current bandwidth of the link and performing subsequent negotiations to establish a modified operating frequency wherein the modified operating frequency is closer to the effective data rate than the initial operating frequency (col. 13, lines 20-24) but does not clearly recite the step for determining that the effective data rate is "below the capacity" of a

current bandwidth. However, in related art and in the same field of endeavor, Ravi teaches a method for dynamically adjusting bandwidth rates based on performance characteristics, including a step for determining the possibility to change the effective data rate to below the capacity or decreasing bandwidth of a link as is possible (see column 7 of Ravi, lines 16-25). One of ordinary skill in the art at the time of the applicants' invention would have found it obvious to implement the ability to decrease the bandwidth capacity of a link as taught by Ravi in combination with the teachings of Chawla which teaches the dynamic allocation of bandwidth. One of ordinary skill in the art would have been motivated to combine the teachings of Chawla and Ravi in order to create a dynamic allocation of bandwidth method/system wherein it is desirable to provide efficient transmissions of multimedia streams which are deemed quite well known and used very often in the Internet realm.

As mentioned above, Chawla recites the determination of effective data rates based on network traffic (col. 12, line 61 – col. 13, line 4) but does not clearly recite this method being done at specific intervals. Chawla teaches the dynamic allocation of bandwidth and therefore it deemed implied that the effective data rate would have to be tested in some sort of way at some point in time. Ravi teaches and suggests this feature in the environment wherein it is desirable to periodically change and effective bandwidth rate of a link (col. 7, lines 16-25) and shows that this can be done dynamically based on threshold values and bandwidth value calculations (col. 7, lines 35-47) and the ability to decrease which enables the system to go into a conversation mode by reducing bandwidth (col. 9, ll. 17-25). Therefore, it would have been obvious

to one of ordinary skill in the art to combine the teachings of Chawla and Ravi under the same rationale as utilized in the above claim limitation.

10. Regarding claim 4, Chawla and Ravi teach the method wherein the initial and subsequent negotiation are compliant with the IEEE 802.3 standard (Chawla, col. 11, lines 25-36, Chawla discloses the use of wireless networks, IEEE 802.3 is considered just an example of a wireless network).

11. Regarding claim 5, Chawla and Ravi teach the method wherein determining the effective data rate includes accumulating information indicative of the amount of network traffic during a specified interval and calculating an effective data rate based thereon (Chawla, col. 13, lines 20-27).

12. Regarding claim 6, Chawla and Ravi teach the method further comprising, responsive to determining that the effective data rate is greater than a specified percentage of the current bandwidth, performing a subsequent negotiation to establish a modified operating frequency, wherein the modified operating frequency is higher than the current operating frequency (Chawla, col. 13, lines 10-20).

13. Claims 7 and 15 contain similar subject matter and are rejected under the same rationale as claim 1.

14. Claim 10 contains similar subject matter and is rejected under the same rationale as claim 4.

15. Claims 11 and 18 contain similar subject matter and are rejected under the same rationale as claim 5.

16. Claims 12 and 19 contain similar subject matter and are rejected under the same rationale as claim 6.

17. Regarding claim 13, Chawla discloses the network wherein the initial and subsequent negotiations are initiated by the central switch (Chawla, col. 13, lines 31-44).

18. Regarding claim 14, Chawla discloses the network wherein the initial and subsequent negotiations are initiated by the server device (Chawla, col. 13, lines 31-44).

19. Claim 21 contains similar subject matter and is rejected under the same rationale as claim 1.

20. Regarding claim 22, Chawla and Ravi teach the computer program product further comprising instructions for determining the effective data rate of the link, wherein the effective data rate is indicative of an amount of data traversing the link during a specified interval (Chawla, col. 13, lines 20-27).

21. Regarding claim 23, Chawla and Ravi teach the computer program product further comprising:

instructions for detecting that the link is over-utilized include instructions for determining that a current bandwidth of the link is less than an effective data rate of the link (Chawla, col. 13, lines 20-24); and

instructions for responding to said detecting that think link is over-utilized by increasing an operating frequency of the link (Chawla, col. 13, lines 27-30).

22. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chawla and Ravi in view of Choi et al. (U.S. 6,661,803), hereinafter referred to as Choi.

23. Regarding claim 20, Chawla and Ravi teach the connection of a client to a server switch and the ability to adjust the bandwidth on the connection dynamically, however does not explicitly disclose the bandwidth being controlled specifically by a clock and clock signals. However, Choi discloses a system wherein a network switch includes a control signal method which controls bandwidth allocation and adjustment (see col. 6, lines 1-6). One of ordinary skill in the art at the time of the applicant's invention would have found it advantageous to combine the method of adjusting bandwidth dynamically between a client and a server switch as taught by Chawla and Ravi and the method of controlling bandwidth through the use of control signals and clock signals, as disclosed by Choi. One of ordinary skill in the art would have been motivated to make such a combination because clock signals are commonly used in the art, as disclosed by Choi, and because Chawla, Ravi and Choi are highly related in the networking arts, due to the fact that they both disclose the desire to control the bandwidth of a connection (see Chawla, col. 13, lines 20-30 and Choi, col. 6, lines 1-14).

Conclusion

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Mukai et al. (U.S. 2002/0085492) disclose apparatus for outputting a signal, a method for outputting the signal, and a computer-readable storage medium storing a computer-executable program for operating a computer to output the signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin A. Ailes whose telephone number is (571) 272-3899. The examiner can normally be reached on M-F 7:30-5, First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3800.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Beatriz Prieto
BEATRIZ PRIETO
PRIMARY EXAMINER

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